PRESENTER: And, you know, an example here for -- in the case of recreation, let's say I'm willing to pay \$10. I've got two \$5 bills. That's my maximum willingness to pay. Right? I get up in the morning and I decide, boy, you know, it's really a nice day, I'm tired of working at home every Saturday and Sunday. I'm going to go out and recreate and I would be willing to pay up to \$10. And that's no different than your decision how much you're going to pay for a Starbucks coffee, how much you're going to pay for a cold beer, whatever. Now, so that's my willingness to pay, and it's a personal value. Each up with of you would have a different -- say if this is for mountain biking, some of you might not be able to pay anything. Mountain biking might be like broccoli to you. You wouldn't catch me dead on a mountain bike, but I like to mountain bike and I might be willing to pay \$10.

Now, I go to BLM site and the entrance fee is \$5, so I hand my \$5 over to Jason, and I now have \$5 of consumer surplus. I was willing to pay 10, but I only had to pay 5, right? There's the access fee or entrance fee is not a market clearing price. So that consumer surplus goes in my wallet or purse, and it is money that I would have paid but I didn't have to pay, and I keep that. And that's the same as the situation with the rancher. BLM's administrative fee for ranching AUM's is a lot like the BLM administrative fee for entrance fees to a recreation area. They're not market clearing prices. Would ranchers really get upset if you were cutting a hundred AUM's if they're only worth \$1.79? Probably not. The fact is that those AUM's are worth a lot more than the \$1.79 BLM charges. The amount that they're worth more is the price of beef that they get when

they sell those cattle minus their costs and the BLM fee, and, you know, economists have estimated that, really, in terms of the net income to the rancher, they would be willing to pay about \$8 more than that fee. And we get that, because we know on private lands and state lands where these grazing fees are put up for bid, in fact, other ranchers are paying \$8, \$10, \$15 an animal unit month. We have a market for AUM's out there. We can kind of look at what BLM's charging, and the difference between what BLM charges administratively and what a free market market clearing price is, that difference is producer surplus. That is money, then, that the rancher has.

Now, getting to your point, well, how do I get this consumer surplus or benefits for wildlife viewing? Well, there's a demand curve for everything. I mean, I never leave home without my demand curve. Like my American Express card. And, you know, I have a demand curve for the Arctic National Wildlife Refuge. I've never been there. The quantity I've consumed is zero. But there is a price, right? If the price got low enough, I would go to the Arctic National Wildlife Refuge.

My recreation trips to go, say, mountain biking on BLM land, it's a downward sloping demand curve, each unit I would be willing to pay a lot for that first one. So much like, you know, today at 5:00 the willingness to pay for that first beer is probably going to be pretty high, right? And the second beer a little less and a little less for the third and fourth and so forth. So there is an amount, right, that I would pay, and because of where I live, I live pretty close, I only have to pay \$10. So the difference between what I

have to pay and what I would be willing to pay, that's consumer surplus that I have as a benefit. The \$10 that I pay, that flows to the local economy to be used for impact analysis.

So when we do a complete economic analysis, both pieces are being captured and both pieces are being utilized. The costs or expenditure to the visitor, that's going to be used as Roy will talk about in an input/output multiplier-type analysis. That's the impact on the local economy. But many of the users of public lands do not live in these areas. One of the sort of fallacies of public land management seems to be that, well, gee, the people that are affected the most are the people that live there. Look at your visitor registers. You go to Slick Rock, right, most of the people that visit Slick Rock, or Canyons of the Ancients, or the Anasazi Visitor Center, right, don't live there. They live in Salt Lake. They live in Denver. These are federal lands. Want to know what the benefits are to everybody, right? These are federal national lands, and much of the benefits flow out of the local economy to people that are users, the people that drive there to go hiking and backpacking or river rafting, and the consumer surplus, then, measures that benefit that those individuals get.

And so when we do a complete economic analysis, we're picking up the benefit to the consumer and the visitor and we're picking up the expenditure in this local economic impact. Historically we've only looked at the cost and expenditure side and we've ignored this side.

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So we want to do, you know, a complete economic analysis. So this kind of

compares -- oh, I'm sorry.

CLASS PARTICIPANT: Where do you add the social benefit?

PRESENTER: Okay. Well, that is -- Stuart and Joan will talk about that. The social

side is -- again, it's not socioeconomic. It's social and economic. So, now in some

sense -- let me go back one slide here -- two slides. I'm going the wrong way.

Hopefully that's a --

In one sense, the social -- the fact that there's lot of consumer surplus to be realized on

public lands causes people to move close to them, right? They move and retire on the

west slope of Colorado, or they -- Grand County and various other places. But this is

the economic part, and then there is a social dimension to this that Joan and Stuart -- I

don't know if you want to add anything, Stuart.

PRESENTER: Well, I guess the one thing that I would add is another way to look at it is

that the consumer surplus isn't just an economic benefit that that could be viewed as a

social benefit and John's just putting a price tag on it, too. Might be another way to look

at it.

PRESENTER: Right, this is the benefits to people, right? I mean, it's why they care

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about public lands, why they write letters and so forth. We have -- and in fact, up to a point, and you go back to some of those concepts that Stuart talked about, like quality of life, okay, quality of life, now there are various indicators, and one indicator of that is this consumer surplus. In some sense that gets capitalized into the property value. So as Andrew was mentioning, why does houses near public lands sell for more? Okay, well, they sell for more because you get access to these recreation areas, and that gets capitalized into the house price.

So, I mean, social and people do go together. We're just looking at one dimension of that, I guess.

CLASS PARTICIPANT: [inaudible] weak dollar, does their consumer surplus count, and how do we deal with that? Is it just the same?

PRESENTER: From an economics standpoint, the accounting stance of whose benefits and costs count, I would argue, you know, from -- people coming from Canada or whatever, right, they're getting benefits. So -- I mean, from our standpoint we generally would count them. Now, some of that is a policy decision, right? They're spending -- when we do an economic impact study, right, the Canadians that come down or from Great Britain or wherever, that obviously gets counted. So it seems like correspondingly, you know, you would want to count the consumer surplus as well.

Other questions --

CLASS PARTICIPANT: [inaudible] Sonoran Institute did a study looking at how well communities in the West were faring, and the communities that did the very best were those communities located next to public land and usually next to public land that's protected. In other words, next to a park or next to a wilderness, and they were more vibrant, they sustained their growth over a longer period of time and did better in the long run than those communities that were relying on extractive industries. So that study is available on the Sonoran Institute's website.

### PRESENTER: Right.

Tomorrow, what I will do in my presentation tomorrow, is I will talk about how do we estimate, empirically estimate, that demand curve for recreation? How do we calculate that consumer surplus. And the good news is we've done that for a lot of BLM lands. We've done hundreds of these studies for other areas, and we've developed tables of value and websites where you can go and look up the consumer surplus for hiking, backpacking, you know, cross-country skiing, off-road vehicle driving, hunting, fishing and so forth. It's not that you have to do these studies yourself. I mean, if you want a value specific to Canyon of the Ancients, yeah, no data equals no analysis. If you don't collect the data, you can't do the analysis. Good news is, lots of us have done these analysis for BLM sites. We've done these analyses for other similar sites. And we'll talk about tomorrow how we do the benefit transfer over to this.

Other questions before we --

So there's kind of two types of analysis one might do, and depending on the planning issues, and that's why this segment is in sort of step 1 on the planning issues, depending on your planning issues, one or more of these types of analyses may be appropriate. So if this is a local economy that's heavily dependent on BLM lands, it's not used much for recreation, that is very isolated from urban areas, well maybe an economic impact analysis that just looks at the county, just looks at the direct spending in the local economy, does the implan multiplier effects, that sort of analysis may be sufficient to address your planning issues.

In other cases you're going to have a situation where, in fact, you know, income and employment is relatively unimportant. When Roy and I were working on the Snake River in Jackson Hole on BLM lands along the Snake River there, you know, income and employment is driven by tourism and the ski area. It's not driven by whether BLM sells these lands or not. But these lands were critical for public access to the river. And so we, in fact, looked primarily at the nonmarket values. What were the benefits to people of having public access to the Snake River south of Grand Teton National Park? And we did a contingent evaluation survey. We looked at this with both the Teton County survey, a survey of Wyoming residents and a survey of national residents, and we looked at willingness to pay.

In other cases, to deal with some of the issues that were raised, you've got national versus local concerns, you would do both types of analysis. You would do an impact analysis. You would do a benefit-cost analysis. Both types of analysis will then give you a complete picture of the economic effects. And so it depends on the planning issues, your geographic location and your region.

Questions or comments?

CLASS PARTICIPANT: I'm kind of using your Snake River example and willingness to pay and all that. You have like the Snake River, you can go up and launch at Moose and you pay the park fee. Or you can go down to Wilson Bridge, which was free. And so I guess, you know, choices like that, a lot of times -- a lot of people kind of prefer to go to that Wilson Bridge where they're not paying. How does that kind of work in where -- you see --

PRESENTER: That's a great example. Let me see if I captured that. So you could launch at Moose in Grand Teton National Park and, let's say, pay a \$20 launch fee or entrance fee to the park. Or you can go downriver five miles to Wilson Bridge where there's no launch fee. Is there a consumer surplus, then, that's realized by launching at Wilson Bridge? Right? The \$20 I would have spent and handed over to the park, there's nobody there at the Wilson Bridge with BLM collecting that money, and so, in fact, my consumer surplus for rafting down the Snake River and going fishing is increased by \$20. Because I don't have to pay that, I retain that as consumer surplus.

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So that's a nice example of, there is a value there, and, you know, it's the difference

between what I would have paid if Moose was the only choice versus, okay, I've got a

less expensive substitute on BLM lands. I don't have to pay that. I keep that \$20 then

as consumer surplus to me. So that's the importance of measuring these sort of

nonmarket or consumer surplus values.

Did that sort of get at.

CLASS PARTICIPANT: What I've been struggling with here, you have a lot of those

choices a lot of times. Back to the Moab example is the exact same thing. I can see

Arches on BLM for free or I can go in the park or pay. So a lot of us are probably going

to choose --

PRESENTER: Right --

CLASS PARTICIPANT: But how does that --

PRESENTER: Well, the quality dimension to it, right? I mean, if you want to see

Delicate Arch, you have to go into Arches National Park. And so the Grand Canyon,

right, is one of the most expensive rafting trips. You can raft down any number of rivers

for a lot less than the Grand Canyon, but if you want the Grand Canyon, you're going to

pay. Is it worth it to you? Yeah. I mean, there's some people that it's worth it to and

there are some people that it isn't, that are happy to do a day trip float, right, down

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through -- by the highway there from the bridge down to Moab.

So this isn't in the -- the economic values reflect this willingness to pay and the willingness to pay reflects the quality. So that's one of the elements in a more complete or sophisticated analysis. You can pick up the qualitative dimensions with water quality, air quality, you know, bagging a six-point trophy elk versus just bagging an elk. We've asked these questions on big fish versus small fish. You know, we've done dozens of fishing studies. It's not just going out there and drowning worms all day. The point is that catching a larger fish has a more utility, more enjoyment and satisfaction to the individual. They'll pay more for it.

So this indicator, willingness to pay, is not only a very reliable one, but it's very sensitive to quality. I mean, we've found in all -- a lot of the studies that it will reflect the quality of the experience in the eyes of the recreation visitor.

CLASS PARTICIPANT: [inaudible] I only got 50 bucks in my pocket. So maybe I can only go to the park once or twice, but can I launch at Wilson Bridge a hundred times.

PRESENTER: Right. And those are the trade-offs in that surveying the visitors you find out. So that's -- on a continuum, you know, the ideal is, look, you survey visitors at the site you're interested in. The next is, can I find a study in the literature similar to this. And then the other is, okay, look, what did they find at the park and I'll just use those

values or I'll use an average of these values. So, you know, we're going to give you in this toolbox a range of techniques from you go out and do your own survey, you know, they're not that difficult to do, you can often work with your land grant university to do them and graduate students do them for slave wages, as some of you know -- we've gotten around that in the past so we'll get around that in the future. So, anyway, there's a range of techniques there and you can kind of get at these values.

Other questions?